



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/641,556	08/17/2000	ANISH K. ARORA	1018.050US2	6351

23460 7590 10/27/2003

LEYDIG VOIT & MAYER, LTD
TWO PRUDENTIAL PLAZA, SUITE 4900
180 NORTH STETSON AVENUE
CHICAGO, IL 60601-6780

EXAMINER

PHAM, THOMAS K

ART UNIT	PAPER NUMBER
----------	--------------

2121

DATE MAILED: 10/27/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/641,556

Applicant(s)

ARORA ET AL.

Examiner

Thomas K Pham

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13.
- ☐ Interview Summary (PTO-413) Paper No(s) _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

Notice to Applicant(s)

1. Claims 11-21 of U.S. Application 09/641556 filed on 08/17/2000 are presented for examination.
2. Applicant's arguments with respect to claims 11, 16 and 17 have been considered but are moot in view of the new ground(s) of rejection.
3. The indicated allowability of claims 13-15 is withdrawn in view of the newly discovered reference(s) to Russell et al U.S. Patent no. 5,506,789. Rejections based on the newly cited reference(s) follow.

DETAILED ACTION

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mun U.S. Patent No. 5,579,221 in view of Russell et al U.S. Patent no. 5,506,789 (hereinafter Russell).

Regarding claim 11

Mun teaches an architecture for an automation system, the automation system used to remotely control and monitor power consuming devices drawing power from a power line in a building, the architecture comprising: a look-up service maintaining a database of (1) the power consuming devices including their attributes of device type and physical location (col. 9 lines 25-

Art Unit: 2121

32, "When the user ... as described above"), and (2) device objects corresponding to the power consuming devices including a name for each device object mapped to at least one address (col. 10 lines 30-35, "a user can select ... operation of appliances"); a store managing information for refreshing the power consuming devices and the device objects (col. 9 line 56 to col. 10 line 8, "microprocessor unit MPU ... write control signal"); a publication/subscription eventing component enabling subscriptions to events related to changes in the refresh information managed by the store (col. 3 line 60 to col. 4 line 6, "if control information ... to be controlled") but does not teach a power line monitor detecting super-imposed transmissions from the power consuming devices on the power line, which signal problems with the power consuming devices. However, Russell teaches a power line monitor detecting super-imposed transmissions from the power consuming devices on the power line, which signal problems with the power consuming devices (abstract). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power line monitor of Russell with the home automation system of Mun because it would provide for monitoring on the power line carrying a load current in order to detect power flow and possible faults event on the line.

Regarding claim 12

Russell teaches the power line monitor uses pattern-based detection for detecting unacceptable power line activity (abstract).

Regarding claims 13, 18 and 21

Russell teaches the power line monitor matches power line patterns against unacceptable power line patterns stored in a pattern database (col. 6 lines 3-8, "the load extraction ... 82 of RAM 52").

Art Unit: 2121

Regarding claims 14 and 19

Russell teaches the power line monitor uses model-based detection for detecting acceptable power line activity (col. 6 lines 49-59, "The data in buffer ... changes on the line 12").

Regarding claims 15 and 20

Russell teaches the power line monitor test power line patterns against a pattern model of acceptable model of acceptable power line patterns (col. 6 lines 60-67, "The normal or predominant ... frequency scale.").

Regarding claim 16

Mun teaches a system for detecting device failures in an automation system for remotely controlling a power-consuming device in a building, the system comprising: a power line providing power to the power consuming device (col. 10 lines 64-66, "power line controller ... AC power source line 144"); a computing device in communication with the power consuming device by way of the power line and receiving from the power consuming device a first set of signals superimposed on the power line, and transmitting to the power consuming device a second set of signals superimposed on the power line (col. 10 line 66 to col. 11 line 19, "Power line controller ... supplied to the appliances") but does not teach a power line monitor that detects a pattern in the first and second sets of superimposed signals and performs a predetermined action when the pattern indicates an anomaly in the automation system. However, Russell teaches a power line monitor that detects a pattern in the first and second sets of superimposed signals and performs a predetermined action when the pattern indicates an anomaly in the automation system (abstract). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power line monitor of

Art Unit: 2121

Russell with the home automation system of Mun because it would provide for monitoring on the power line carrying a load current in order to detect power flow and possible faults event on the line.

Regarding claim 17

Mun teaches an automation system for remotely controlling a power consuming device in a building, the system including: a power line providing power to the power consuming device (col. 10 lines 64-66, "power line controller ... AC power source line 144"); and a computing device in communication with the power consuming device by way of the power line and receiving from the power consuming device a first set of signals superimposed on the power line, and transmitting to the power consuming device a first set of signals superimposed on the power line, and transmitting to the power consuming device a second set of signals superimposed on the power line (col. 10 line 66 to col. 11 line 19, "Power line controller ... supplied to the appliances") but does not teach a method comprising: detecting a pattern in the first and second sets of superimposed signals and performing a predetermined action when the pattern indicates an anomaly in the automation system. However, Russell teaches a power line monitor that detects a pattern in the first and second sets of superimposed signals and performs a predetermined action when the pattern indicates an anomaly in the automation system (abstract). Therefore, it would be obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power line monitor of Russell with the home automation system of Mun because it would provide for monitoring on the power line carrying a load current in order to detect power flow and possible faults event on the line.

Art Unit: 2121

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (703) 305-7587 and fax number is (703) 746-8874, Monday-Thursday and every other Friday from 7:30AM- 5:00PM EST or contact Supervisor *Mr. Anil Khatri* at (703) 305-0282.

Any response to this office action should be mailed to: **Director of Patents and Trademarks Washington, D.C. 20231**, or **Hand-delivered** responses should be brought to **Crystal Park II, 2121 Crystal Drive Arlington, Virginia, (Receptionist located on the 4th floor)**, or fax to the **official fax number (703) 872- 9306**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Thomas Pham
Patent Examiner

TP

October 14, 2003

Ramesh Patel
RAMESH PATEL
PRIMARY EXAMINER 10/14/03
For Anil Khatri